

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

FAIR FIGHT ACTION, *et al.*,

Plaintiffs,

v.

BRAD RAFFENSPERGER, in his  
official capacity as Secretary of State of  
Georgia; *et al.*,

Defendants.

Civil Action File

No. 1:18-cv-05391-SCJ

**DEFENDANTS' MOTION TO EXCLUDE TESTIMONY OF  
J. ALEX HALDERMAN AND SUPPORTING BRIEF**

Pursuant to Federal Rules of Evidence 702, Defendants Secretary Brad Raffensperger, the State Election Board, and the State Election Board Members Rebecca Sullivan, David Worley, and Anh Le (collectively “Defendants”), submit this Motion and incorporated Brief to exclude the testimony of J. Alex Halderman, Ph.D. (“Dr. Halderman”) both at trial and in consideration of Defendants’ Motions for Summary Judgment. *See Chapman v. Proctor & Gamble Distrib., LLC*, 766 F.3d 1296, 1313 (11th Cir. 2014) (only admissible evidence can be considered in analyzing motion for summary judgment).

## INTRODUCTION

Dr. Halderman is Plaintiffs’ expert witness regarding the alleged deficiencies of Georgia’s election technology. (Doc. Nos. 239 & 242) (together, the “Halderman Report”); Amended Complaint, (Doc. No. 41 at ¶¶ 94-107). He personally believes that the best way to secure elections is to count hand-marked ballots electronically followed by manual confirmation. Deposition of A. Halderman<sup>1</sup> (“Halderman Dep.”) at 75:12-75:15. Dr. Halderman’s report encompasses (1) voting technology that Plaintiffs do not challenge and (2) voting technology the State of Georgia will never use again. Because Georgia does not utilize paper hand-marked ballots, he opines that its voting system “could” be hacked.

## STATEMENT OF FACTS

Dr. Halderman rendered an opinion about both Georgia’s old and current election system, despite the fact that Plaintiffs only challenge the old DRE-based voting system, not the new ballot-marking devices (“BMDs”). Halderman Report at ¶¶ 88-101; (Doc. No. 271, p. 9 n.4). Despite the fact that Plaintiffs do not challenge BMDs in their Amended Complaint, Dr. Halderman spends most of his report discussing new BMDs, precinct-count

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<sup>1</sup> A copy of the transcript of Dr. Halderman’s deposition is attached as Exhibit A to this brief.

scanners, central-count scanners, and election management system manufactured by Dominion Voting Systems and the electronic poll books supplied by KNOWiNK, LLC. Halderman Report at ¶ 14. His opinion is “primarily about” the risks of cyber-attacks by “sophisticated adversaries like hostile governments.” Halderman Dep. at 80:18-81:06. He personally believes that the best way to secure elections is to count hand-marked paper ballots electronically followed by manual confirmation. *Id.* at 75:12-75:15. Despite Plaintiffs’ claims about racial impacts, his opinion does not include any analysis of the racial impact of such cyber-attacks. *Id.* at 14:09-14:14. Dr. Halderman spends a few paragraphs at the end of his report about the system Plaintiffs challenge, Halderman Report at ¶¶ 88-101, while acknowledging that this system is no longer used in Georgia and agreed that Georgians should not doubt the outcomes of the 2018 election. Halderman Dep. at 187:18-23, 190:25-191:15.

Dr. Halderman based his opinion on documents that Dominion provided to the Plaintiffs, Halderman Report at ¶ 15, and an order in another voting rights case in this Court, Halderman Dep. at 8:07-9:09. He did not obtain information from any county election officials or Defendant Raffensperger’s office. Halderman Dep. at 16:04-18. He also relied on two studies. The first was a non-peer-reviewed survey of one-hundred-ninety

(190) voters in a Tennessee primary election posted on SSRN. Halderman Report at ¶ 81, fn. 42; <https://ssrn.com/abstract=3292208>. The second was a peer-reviewed study of 241 simulated votes. Halderman Report at ¶ 81, fn 3; <https://jhalderm.com/pub/papers/bmd-verifiability-sp20.pdf>.

Dr. Halderman’s opinion is that “Georgia’s election system faces a high risk of being targeted by sophisticated adversaries.” Halderman Report at ¶ 20. He never quantified any of the risks that he identified, instead offering only imprecise verbs about imaginative scenarios. *See, e.g., id.* at ¶ 23(a) (“could infiltrate”), ¶ 23(b) (“could sabotage”), ¶ 23(c) (“could manipulate”), ¶ 23(d) (“could infiltrate”), ¶ 23(e) (“also could infiltrate . . . and change”), ¶ 24 (“could carry out” and “could be introduced”), ¶ 25 (“could directly target”), ¶ 26 (“might nonetheless be targeted”, “could employ,” “could potentially spread”), ¶ 36 (“implies that attackers could modify”), ¶ 45 (“large variety of security risks,” “could remotely alter,” “could potentially spread,” “could also likely exploit”), ¶ 50 (“could infiltrate”), ¶ 51 (“might attempt”, “heightened threat”), ¶ 71 (“makes it possible”), ¶ 72 (“could potentially infect”), ¶ 73 (“could change”).

Dr. Halderman has no information that hackers ever have actually accessed Georgia’s voter registration system. Halderman Dep. at 32:12-32:23, 117:02-117:12, 161:12-161:17, 117:02-117:12, or its voting machines, *id.* at

39:11-40:19, 40:23-41:04, 113:04-113:21, 120:25-121:07, 122:05-122:25, 132:01-132:10, 187:25-188:06. He in fact has no knowledge of *any* votes *ever* being changed in any U.S. election, *id.* at 44:18-45:01, 56:22-58:13, 62:07-62:19, 95:19-96:01, 131:19-131:25, 169:01-169:10, or in any Dominion voting system, *id.* at 135:21-136:03, 169:01-169:10. He has also never seen malware that would alter a ballot on the Dominion voting system in ways that he says “could” happen. *Id.* at 126:01-09; Halderman Report at ¶¶ 53-56.

## ARGUMENT AND CITATION OF AUTHORITY

Dr. Halderman’s testimony does not meet the requirements for expert testimony in this circuit. Defendants do not dispute his expertise, but Dr. Halderman’s opinion is neither reliable nor relevant to the issues in this litigation.

### **I. The *Daubert* standard.**

Trial courts have a critical responsibility under Rule 702 to ensure that expert testimony at trial is reliable. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993); *see also, Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999), Fed. R. Evid. 702. A federal trial court must review “the *foundations* of expert opinions to ensure they meet the standards for admissibility.” *United States v. Frazier*, 387 F.3d 1244, 1260 (11th Cir. 2004) (en banc) (emphasis in original). The proponent of the testimony has the

burden of showing that the expert's opinion meets those standards. *McCorvey v. Baxter Healthcare Corp.*, 298 F.3d 1253, 1257 (11th Cir. 2002).

The first step in a Rule 702 *Daubert* analysis is whether the expert is qualified to give an expert opinion. *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 562 (11th Cir. 1998). Defendants do not dispute Dr. Halderman's expertise in the area of electronic voting machines. Dr. Halderman does not claim to be an expert in all areas of election administration, Halderman Dep. at 28:04-29:17, but he does have sufficient expertise in cybersecurity of electronic voting machines to meet the first prong of *Daubert* and *City of Tuscaloosa*.

That determination, however, is not the end of this Court's inquiry. The expert's opinion also must be reliable. *City of Tuscaloosa*, 158 F.3d at 562. Even a qualified expert witness can offer unreliable testimony. *Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, 1342 (11th Cir. 2003). The reliability analysis considers "(1) whether the theory or technique can be tested; (2) whether it has been subjected to peer review; (3) whether the technique has a high known or potential rate of error; and (4) whether the theory has attained general acceptance within the scientific community." *Daubert*, 509 U.S. at 593-94.

Furthermore, expert testimony also must meet “stringent standards” of relevance set forth in Federal Rules of Evidence 401, 402, and 403. *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1309-10 (11th Cir. 1999). This relevance analysis requires that the expert opinion “logically advances a material aspect of the proposing party’s case.” *Id.* at 1312, *quoting*, *Daubert* 43 F.3d at 1314 (on remand). Dr. Halderman’s testimony does not meet these latter two standards.

## **II. Dr. Halderman’s opinion is not reliable.**

Dr. Halderman’s opinion is not sufficiently reliable for several reasons. First, as set out above, Dr. Halderman never quantified any of the many risks that he described. He simply listed possibilities, with no explanation of how likely it is that each scenario actually will occur. In this respect, his opinion is identical to the opinion that the Court excluded in *Frazier*:

[T]he very meaning of his basic opinion is uncertain. Whether Tressel opined that “expect,” as he used the term, meant that it was more likely than not that trace evidence would be found, or that or that it was substantially more likely than not that it would be found if there was a sexual assault, or that discovery was a virtual certainty, is altogether unclear from Tressel’s report or his testimony. The specific meaning of the opinion is impossible to discern.

*Frazier*, 387 F.3d at 1265 (emphasis in original). Similarly, it is impossible to determine the parameters of Dr. Halderman’s opinion in this case—he opines

that one type of election system is too risky, but cannot quantify the standard he used to make that determination. Thus, his opinion is not sufficiently reliable to be admissible.

The ultimate reason that Dr. Halderman could not quantify the degree of risk is that his opinion actually is a policy decision, divorced from any scientific analysis. He believes that the only acceptable method of administering elections is hand-marked paper ballots. Halderman Dep. at 74:05-74:09 (paper ballots is best method from a security perspective). When asked if there were any scenario, other than disabled voters, where he would support using electronic machines over paper ballots, he responded, “Is there any scenario? In general, no.” Halderman Dep. at 73:19-73:22.

Dr. Halderman did not evaluate Georgia’s new system on its own merits. He simply decided, as a policy matter, that the only acceptable system is hand-marked paper ballots and then he reasoned backward from that conclusion. *See, e.g.*, Halderman Dep. at 76:06-76:09 (best system for Georgia would be hand-marked paper ballots), 190:25-191:15 (security risks on Georgia’s previous voting machines no longer matter “[b]ecause the election has been decided and history has moved on”), 145:15-145:24 (no ballot marking device is sufficiently secure). *See also, id.* at 55:01-56:17 & Ex. 10



(recommending federal policy of paper ballot); *id.* at 59:11-59:12 (“I think my policy recommendations in those terms have been consistent”).

The mere fact that Georgia’s system of BMDs is not a hand-marked paper ballot system was all Dr. Halderman needed for his “expert” analysis, as he explained:

The question is to me the methodology that I would apply is what are the alternative ways of achieving this policy goal and are there practical cybersecurity techniques that we could use to achieve security under those circumstances. And when the outcome turns out to be no, we either have a system that is at high risk of attack or not, I think that the policy—the policy balance outcome is pretty clear.

Halderman Dep. at 84:13-84:21. He later testified:

[T]he question to me is can you achieve the same policy objectives well with the hand-marked system. Right? And if you can achieve those policy objectives well with the system that is significantly more secure, then I believe on the basis of that reasoning it’s the—it’s the superior choice.

*Id.* at 85:17-85:23. In short, Dr. Halderman is not offering scientific knowledge to this Court—he is advocating for his preferred method of conducting elections.

A sister court has noted this same failure in Dr. Halderman’s analysis when he opined about one of the systems that he touts as supporting his expertise. In denying a motion to enforce a settlement agreement related to Dr. Jill Stein’s campaign for president, a district court found Dr. Halderman’s

opinion to be not reliable because of his continued role as an advocate for his preferred policy: “Dr. Halderman’s testimony was neither credible nor helpful. Throughout, he acted more as an advocate than an ‘expert.’ . . . Indeed, Halderman’s ‘advocacy’ was so vigorous, I was compelled to caution him (to no avail).” *Stein v. Bockvar*, No. 16-6287, 2020 U.S. Dist. LEXIS 75476 at \*33 (E.D. Pa., April 29, 2020).

That same court had earlier expressed significant concerns about Dr. Halderman’s knowledge of the election system at issue. In this case, Dr. Halderman cited his knowledge of Pennsylvania’s election system as part of the basis of his opinion. Halderman Report at ¶¶ 48 & 49; Halderman Dep. at 118:12-16. Dr. Halderman presumably obtained some of that knowledge when he served as an expert for Dr. Stein’s campaign in a suit challenging Pennsylvania’s election machines following the 2016 election. *Stein v. Cort*, 223 F. Supp. 423 (E.D. Pa. 2016). The federal court denied the preliminary injunction the campaign sought, noting that Dr. Halderman “knew virtually nothing” about the Pennsylvania practices at issue. *Id.* at 441. Dr. Halderman’s testimony is no more credible in this case.

Dr. Halderman’s policy decision drove his failure to conduct an effective and reliable review of Georgia’s election system. He has never personally examined any component of Georgia’s new election system. Halderman Dep.

100:25-101:25. His views are based on his experience “with other electronic voting systems,” *id.* at 101:19, his review of the Dominion documentation, *id.* at 101:20, and tests that authorities conducted in California and Pennsylvania, *id.* at 101:21, Halderman Report at ¶¶ 34-40, 47-48. His opinion was not based on any personal evaluation of the Dominion systems in either Georgia or California. Halderman Dep. at 101:22-25, 136:04-136:11, 146:25-147:03.

Dr. Halderman has never compared Georgia’s eNet system for voter registration with the systems used in other states, Halderman Dep. at 103:18-103:25, and he knows next to nothing about how Georgia manages that system, *id.* at 103:25-104:09, 158:21-160:06. He has the same level of ignorance about the functioning of Georgia’s new election machines. *Id.* at 175:09-175:15, 175:05-15:17, 123:12-124:09, 145:25-146:07, 163:01-164:07, 176:11-176:25, 177:19-177:25, 178:07-179:08, 188:18-189:08. Even where he relied on tests conducted in other states, he didn’t fully evaluate them, *id.* at 168:20-168:25, and cannot say whether he would find those states’ systems acceptable, *id.* at 165:22-166:01. He has never seen malware that would alter a ballot on the Dominion voting system in ways that he says “could” happen. *Id.* at 126:01-09, 135:21-136:01; Halderman Report at ¶¶ 23, 26. *Cf., Stein v. Bockvar*, 2020 U.S. Dist. LEXIS 75476 at \*36-\*39 (“Halderman was unable to

explain how a hacker could actually create and install malware” that would create the risk he claimed existed).

In regard to his opinions about Georgia’s voter registration system, Dr. Halderman has studied fewer than five other state’s systems and could name only three of those. Halderman Dep. at 117:20-118:16. One was Pennsylvania—the same state where a federal court found on two separate occasions that he actually knows very little about. *Stein v. Cort*, 223 F. Supp. at 441 (E.D. Pa. 2016); *Stein v. Bockvar*, 2020 U.S. Dist. LEXIS at \*33-\*34.

Dr. Halderman did not apply his expertise reliably to Georgia’s new voting machines. He has never thoroughly evaluated Georgia’s system, relying instead on second-hand accounts and “similar” systems. He adopted a preferred end result and simply reasoned backward. That process does not meet the standards of Rule 702 and *Daubert*, and this Court should exclude his testimony.

### **III. Dr. Halderman’s Opinion Is Not Relevant.**

The final analysis is whether an expert’s opinion is relevant to the inquiry at hand. Even if Dr. Halderman’s opinion were reliable, it “does not relate to any issue in the case . . . and, ergo, [is] non-helpful” and should be excluded. *Kilgore v. Reckitt Benckiser, Inc.*, 917 F. Supp. 2d 1288, 1292 (N.D. Ga. 2013).

First, and most clearly, Dr. Halderman’s opinion focuses on a system that Plaintiffs *do not challenge* in this case—the new BMDs. *Compare* (Doc. 84 at 32:22-24) (“The voting machines, Your Honor, there’s an allegation in our case about the current voting machines. There are no new ones.”) *with* Halderman Report at ¶ 14 (“Plaintiffs have asked me to opine on the security of Georgia’s election system *following the implementation of new technology from Dominion Voting Systems*”) (emphasis added); *see also* (Doc. 271, p. 9 n.4). Because Dr. Halderman opines about a system that Plaintiffs do not challenge, his opinion fails the test of relevance at the outset.

Second, Dr. Halderman’s opinion actually does not relate to Georgia’s election system. He is simply making a philosophical determination that, because Georgia does not utilize hand-marked paper ballots, its system is not secure. He has never personally evaluated any Dominion system. Halderman Dep. at 101:22-25, 136:04-136:11, 146:25-147:03. He actually knows every little about the Dominion system Georgia now uses. *Id.* at 46:25-52:02, 105:23-106:12, 107:05-107:17, 121:08-121:21, 123:13-124:14, 174:03-174:11, 176:11-176:25, 177:19-177:25, 178:07-179:08. Much of his opinion actually is based on evaluating completely different voting systems. *Id.* at 172:09-173:06). His opinion, then, offers no information helpful to this Court’s decision.

Just as important, Dr. Halderman's opinion is not scientific analysis, but simply an opinion about policy.<sup>2</sup> He favors hand-marked paper ballots, and because Georgia opted for an electronic system, he disapproves. As he explained, "the policy balance outcome is pretty clear." Halderman Dep. 84:21. His opinion is simply a repetition of the Plaintiff's legal arguments about what policy choice Defendants should have made. "Proffered expert testimony generally will not help the trier of fact when it offers nothing more than what lawyers for the parties can argue in closing arguments." *Frazier*, 387 F.3d at 1261.

Finally, Dr. Halderman's inability to quantify the likelihood that a sophisticated adversary will be able to hack Georgia's machines makes his opinion irrelevant. As the *Frazier* court explained, an expert's "imprecise and unspecific" opinion is not helpful to a factfinder. *Frazier*, 387 F.3d at 57. *See also, Krise v. SEI/Aaron's, Inc.*, No. 1:14-CV-1209-TWT, 2017 U.S. Dist. LEXIS 133818, \*13-\*14 (N.D. Ga. August 22, 2017) (expert's "consistent use

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<sup>2</sup> This type of "expert" testimony is especially likely to be prejudicial when a jury is involved, because the policy judgment comes wrapped in the form of expert testimony. "Simply put, expert testimony may be assigned talismanic significance in the eyes of lay jurors, and, therefore, the district courts must take care to weigh the value of such evidence against its potential to mislead or confuse." *Frazier*, 387 F.3d at 1263.

of ‘may,’ ‘can,’ and ‘could’ makes [expert’s] statements merely possible” and not relevant).

Thus, Dr. Halderman’s opinion does not meet the final prong of the *Daubert* standard, and this Court should exclude it from consideration.

### **CONCLUSION**

For all of the foregoing reasons, this Court should exclude Dr. Halderman’s policy advocacy from consideration on any issues in this litigation.

Respectfully submitted this 26th day of June, 2020.

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**CERTIFICATE OF COMPLIANCE**

Pursuant to Local Rule 7.1(D), I hereby certify that the foregoing  
DEFENDANTS' MOTION TO EXCLUDE TESTIMONY OF J. ALEX  
HALDERMAN AND SUPPORTING BRIEF was prepared double-spaced in  
13-point Century Schoolbook font, approved by the Court in Local Rule  
5.1(C).

/s/ Bryan P. Tyson  
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